

**60th Medical Group (AMC), Travis AFB, CA**  
**INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC)**  
**FINAL REPORT SUMMARY**

(Please type all information. Use additional pages if necessary.)

**PROTOCOL #:** FDG20170016A

**DATE:** 1 March 2018

**PROTOCOL TITLE:** "Basic Microsurgery Training Using the Laboratory Rat (*Rattus norvegicus*)."

**PRINCIPAL INVESTIGATOR (PI) / TRAINING COORDINATOR (TC):** Lt Col Ryan Diepenbrock

**DEPARTMENT:** SGDDS

**PHONE #:** 707-423-7085

**INITIAL APPROVAL DATE:** 23 March 2017

**LAST TRIENNIAL REVISION DATE:** N/A

**FUNDING SOURCE:** SG

**1. RECORD OF ANIMAL USAGE:**

Animal Species:	Total # Approved	# Used this FY	Total # Used to Date
<i>Rattus norvegicus</i>	180	0	0

**2. PROTOCOL TYPE / CHARACTERISTICS:** (Check all applicable terms in **EACH** column)

<input checked="" type="checkbox"/> Training: Live Animal	<input type="checkbox"/> Medical Readiness	<input type="checkbox"/> Prolonged Restraint
<input type="checkbox"/> Training: non-Live Animal	<input type="checkbox"/> Health Promotion	<input type="checkbox"/> Multiple Survival Surgery
<input type="checkbox"/> Research: Survival (chronic)	<input type="checkbox"/> Prevention	<input type="checkbox"/> Behavioral Study
<input type="checkbox"/> Research: non-Survival (acute)	<input type="checkbox"/> Utilization Mgt.	<input type="checkbox"/> Adjuvant Use
<input type="checkbox"/> Other (                    )	<input type="checkbox"/> Other (Treatment    )	<input type="checkbox"/> Biohazard

**3. PROTOCOL PAIN CATEGORY (USDA):** (Check applicable)    ☐ C    ☒ D    ☐ E

**4. PROTOCOL STATUS:**

**\*Request Protocol Closure:**

☐ Inactive, protocol never initiated

☒ Inactive, protocol initiated but has not/will not be completed

☐ Completed, all approved procedures/animal uses have been completed

**5. Previous Amendments:**

List all amendments made to the protocol. **IF none occurred, state NONE. Do not use N/A.**

**For the Entire Study Chronologically**

Amendment Number	Date of Approval	Summary of the Change
None		

6. **FUNDING STATUS:** Funding allocated: \$9,240 Funds remaining: \$9,240

7. **PROTOCOL PERSONNEL CHANGES:**

Have there been any personnel/staffing changes (PI/CI/AI/TC/Instructor) since the last IACUC approval of protocol, or annual review? ☐ Yes ☒ No

If yes, complete the following sections (Additions/Deletions). For additions, indicate whether or not the IACUC has approved this addition.

**ADDITIONS:** (Include Name, Protocol function - PI/CI/AI/TC/Instructor, IACUC approval - Yes/No)

**DELETIONS:** (Include Name, Protocol function - PI/CI/AI/TC/Instructor, Effective date of deletion)

8. **PROBLEMS / ADVERSE EVENTS:** Identify any problems or adverse events that have affected study progress. Itemize adverse events that have led to unanticipated animal illness, distress, injury, or death; and indicate whether or not these events were reported to the IACUC.

None

9. **REDUCTION, REFINEMENT, OR REPLACEMENT OF ANIMAL USE:**

**REPLACEMENT (ALTERNATIVES):** Since the last IACUC approval, have alternatives to animal use become available that could be substituted in this protocol without adversely affecting study or training objectives?

No

**REFINEMENT:** Since the last IACUC approval, have any study refinements been implemented to reduce the degree of pain or distress experienced by study animals, or have animals of lower phylogenetic status or sentience been identified as potential study/training models in this protocol?

No

**REDUCTION:** Since the last IACUC approval, have any methods been identified to reduce the number of live animals used in this protocol?

No

10. **PUBLICATIONS / PRESENTATIONS:** (List any scientific publications and/or presentations that have resulted from this protocol. Include pending/scheduled publications or presentations).

None

11. **Were the protocol objectives met, and how will the outcome or training benefit the DoD/USAF?**

Yes. Residents became better prepared for entry knowledge of microvascular repair, but with the limited application in the clinical setting, I deem continuing the training is no longer relevant. If a microvascular surgeon returns to DGMC, than this will once again, be a valuable training exercise.

12. **PROTOCOL OUTCOME SUMMARY:** (Please provide, in "ABSTRACT" format, a summary of the protocol objectives, materials and methods, results - include tables/figures, and conclusions/applications.)

The purpose of this course is to familiarize PGY-3 Oral and Maxillofacial Surgery Residents with basic principles of microvascular surgery. At the conclusion of the course, the participant will be better suited to assist/perform basic techniques required in nerve and vessel reanastomosis. Over a 4 day period, the participant will learn via both didactic and hands-on experience. Using a rat model, the participant will learn to utilize basic microsurgical techniques and become familiar with the instrumentation. Hands on skill set will develop to further assist the resident in actual human patient procedures. The OMS microvascular course is an essential part of the contemporary Oral and Maxillofacial Surgery resident training. The course will provide the basic skills needed to perform and assist in human surgeries.



RYAN M. DIEPENBROCK, Lt Col, USAF, DC

8 Mar 2018  
(Date)

**Attachments:**

Attachment 1: Defense Technical Information Center (DTIC) Abstract Submission

**Attachment 1**  
**Defense Technical Information Center (DTIC) Abstract Submission**

**Objectives:** The purpose of this course is to familiarize PGY-3 Oral and Maxillofacial Surgery Residents with basic principles of microvascular surgery. At the conclusion of the course, the participant will be better suited to assist/perform basic techniques required in nerve and vessel reanastomosis.

**Methods:** Over a 4 day period, the participant will learn via both didactic and hands-on experience. Using a rat model, the participant will learn to utilize basic microsurgical techniques and become familiar with the instrumentation.

**Results:** Hands on skill set will develop to further assist the resident in actual human patient procedures.

**Conclusion:** The OMS microvascular course is an essential part of the contemporary Oral and Maxillofacial Surgery resident training. The course will provide the basic skills needed to perform and assist in human surgeries.

At this point, I am suspending the course due to a lack of clinical application at DGMC

**Grant Number:**\_\_\_\_\_

**From:**\_\_\_\_\_

**\*\*If you utilized an external grant, please provide Grant # and where the grant came from. Thank you.**